



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0697; Project Identifier MCAI-2020-01540-R; Amendment 39-21802; AD 2021-23-04]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Leonardo S.p.a. Model A109E helicopters. This AD was prompted by reports of cracking in the center fuselage frame assembly in the intersection of the lateral pylon and floor spar at station (STA) 1815 on the left- and right-hand sides. This AD requires repetitive inspections of the intersection of the lateral pylon and floor spar at STA 1815 for cracking and, depending on the findings, repair, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For EASA material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find the EASA material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material

at the FAA, call (817) 222-5110. It is also available in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0697.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0697; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the EASA AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0256, dated November 17, 2020 (EASA AD 2020-0256), to correct an unsafe condition for Leonardo S.p.A., formerly Finmeccanica S.p.A., AgustaWestland S.p.A., and Agusta S.p.A., Model A109E helicopters, serial numbers 11001 through 11674 inclusive.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Leonardo S.p.a. Model A109E helicopters. The NPRM published in the *Federal Register* on August 26, 2021 (86 FR 47608). The NPRM was prompted by reports of cracking in the center fuselage frame assembly in the intersection of the lateral pylon and floor spar at STA 1815 on the left- and right-hand sides. The NPRM proposed to require repetitive inspections of the intersection of the lateral pylon and floor spar at STA 1815 for cracking and, depending on the findings, repair, as specified in EASA AD 2020-0256.

The FAA is issuing this AD to address cracking in the intersection of the lateral pylon and floor spar at STA 1815 on the left- and right-hand sides, which, if not addressed, could affect the structural integrity of the helicopter. See EASA AD 2020-0256 for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from one commenter. The commenter was an individual. The following presents the comment received on the NPRM and the FAA's response to that comment.

Request for Terminating Action

An individual requested that the NPRM include a terminating action for the repetitive inspections once an operator has completed the repairs using the procedures in Parts II and III of the Accomplishment Instructions of Leonardo Helicopters Alert Service Bulletin 109EP-173, dated November 10, 2020. The commenter did not provide justification for this request, but the FAA infers that it is because the NPRM does not provide a terminating action for the repetitive inspections.

The FAA does not agree with the commenter's request. Neither EASA AD 2020-0256, nor Leonardo Helicopters Alert Service Bulletin 109EP-173, dated November 10, 2020, provide terminating action for the repetitive inspections specified in Paragraph (1), "Repetitive Inspection," of EASA AD 2020-0256. Paragraph (4), "Terminating Action," of EASA AD 2020-0256 states "None." Paragraph (3), "Corrective Action(s)," of EASA AD 2020-0256 specifies that, after accomplishing a repair in an affected area using Parts II (for the left-hand side) and III (for the right-hand side) of the Accomplishment Instructions of Leonardo Helicopters Alert Service Bulletin 109EP-173, dated November 10, 2020, the next inspection can be deferred, but the repetitive inspections of the affected area must continue. Leonardo Helicopters has not provided a modification to the affected area that eliminates the unsafe condition identified in this AD; therefore, the FAA cannot include a terminating action in this AD. The FAA has not changed this AD in regard to this issue.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data, considered the comment received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under 1 CFR Part 51

EASA AD 2020-0256 requires repetitive inspections of STA 1815 for cracking, fluorescent liquid penetrant inspections of any cracking to determine the extent of the cracking, and repair if necessary. For both the left- and right-hand side repair, the actions include removing equipment and furnishings to gain access to the work area; testing the flight control system for correct travel of the flight controls; performing an operational test of the cockpit and passenger doors caution system; installing a new forward cap; installing a new angle, butt strap, and web; installing new cotter pins; and reinstalling the removed equipment and furnishings when the repair is complete.

For the left-hand side repair, the actions also include replacing the nut plates with new nut plates, and an operational test of the collective control system and tail rotor control system. For the right-hand side repair, the actions include an operational test of the cyclic control system.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Differences Between this AD and the EASA AD

EASA AD 2020-0256 specifies to accomplish corrective actions if “any crack is detected in an affected area” during a required inspection. Figure 1 of the service information referenced in EASA AD 2020-0256 depicts the affected area, but the FWD bulkhead is mislabeled as AFT. This AD includes an exception to clarify the correct location of the FWD bulkhead depicted in Figure 1.

Costs of Compliance

The FAA estimates that this AD affects 70 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	6 work-hours X \$85 per hour = \$510 per inspection cycle	\$0	\$510 per inspection cycle	\$35,700 per inspection cycle

The FAA estimates the following costs to do any necessary repairs that would be required based on the results of the inspection. The agency has no way of determining the number of helicopters that might need these repairs:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair left-hand side	120 work-hours X \$85 per hour = \$10,200	\$6,600	\$16,800
Repair right-hand side	120 work-hour X \$85 per hour = \$10,200	\$5,200	\$15,400

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-23-04 Leonardo S.p.a.: Amendment 39-21802; Docket No. FAA-2021-0697;
Project Identifier MCAI-2020-01540-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Leonardo S.p.a. Model A109E helicopters, certificated in any category, as identified in European Union Aviation Safety Agency (EASA) AD 2020-0256, dated November 17, 2020 (EASA AD 2020-0256).

(d) Subject

Joint Aircraft Service Component (JASC) Code: 5300, Fuselage Structure.

(e) Unsafe Condition

This AD was prompted by reports of cracking in the center fuselage frame assembly in the intersection of the lateral pylon and floor spar at station (STA) 1815 on the left- and right-hand sides. The FAA is issuing this AD to address cracking in the intersection of the lateral pylon and floor spar at STA 1815 on the left- and right-hand sides, which, if not addressed, could affect the structural integrity of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2020-0256.

(h) Exceptions to EASA AD 2020-0256

(1) Where EASA AD 2020-0256 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(2) Where EASA AD 2020-0256 AD refers to its effective date, this AD requires using the effective date of this AD.

(3) Where Figure 1 of the service information referenced in EASA AD 2020-0256 depicts the AFT bulkhead twice, for clarification, the FWD bulkhead is mislabeled as AFT and depicted on the left side of Figure 1, below 109-0320-96 POST ASSY (REF) and above FWD CAP.

(4) Where the service information referenced in EASA AD 2020-0256 specifies discarding parts, this AD requires removing those parts from service.

(5) Where paragraph (2) of EASA AD 2020-0256 or the service information referenced in EASA AD 2020-0256 specifies to contact the manufacturer for repair information, for this AD: Before further flight, do the repair using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Leonardo S.p.a.'s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(6) This AD does not mandate compliance with the “Remarks” section of EASA AD 2020-0256.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2020-0256 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email andrea.jimenez@faa.gov.

(I) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2020-0256, dated November 17, 2020.

(ii) [Reserved]

(3) For EASA AD 2020-0256, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find the EASA material on the EASA website at <https://ad.easa.europa>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0697.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on October 26, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2021-26333 Filed: 12/3/2021 8:45 am; Publication Date: 12/6/2021]